In the Claims

Please cancel Claims 16, 17 and 19-21.

Please amend Claims 1, 4, 5, 6, 10, 11 and 18. Amendments to the claims are indicated in the attached "Marked Up Version of Amendments" (pages i-iii).

1. (Amended) A retroviral vector comprising one or more promoters inserted in antisense orientation within the 5' long terminal repeat (LTR) region and one or more coding sequences inserted in antisense orientation within the 3' LTR region, both the promoter as well as the coding sequence inserted in such a way as to ensure that the promoter and the coding sequence become duplicated during the process of reverse transcription in a target cell and appear in the 3' as well as in the 5' LTR region of the resulting provirus in a fashion where the promoter is located upstream of the coding sequence and drives expression of the coding sequence.

4. (Amended) The retroviral vector according to claim 1, wherein said coding sequence comprises DNA which is heterologous to the vector.

5. (Amended) The retroviral vector according to claim 4, wherein said coding sequence is selected from one or more elements of the group consisting of marker genes, therapeutic genes, antiviral genes, antitumour genes, cytokine genes, toxin genes and combinations thereof.

6. (Amended) The retroviral vector according to claim 1, wherein said promoter is a constitutive promoter.

10. (Amended) A recombinant retroviral vector system comprising a retroviral vector comprising

a) one or more promoters inserted in antisense orientation within the 5' long terminal repeat (LTR) region and one or more coding sequences inserted in antisense orientation within the 3' LTR region, both the promoter as well as the coding sequence inserted in such a way as to ensure that the promoter and the coding sequence become duplicated during the process of reverse transcription in a target cell and appear in the 3' as well as in the 5' LTR region of the resulting provirus in a fashion where the promoter is located upstream of the coding sequence and drives expression of the coding sequence, and

b) a packaging cell line harbouring at least one retroviral construct coding for proteins required for said retroviral vector to be packaged.

11. (Amended) A retroviral particle produced by transfecting a packaging cell line of a retroviral vector system comprising

a) a retroviral vector comprising one or more promoters inserted in antisense orientation within the 5' long terminal repeat (LTR) region and one or more coding sequences inserted in antisense orientation within the 3' LTR region, both the promoter as well as the coding sequence inserted in such a way as to ensure that the promoter and the coding sequence become duplicated during the process of reverse transcription in a target cell and appear in the 3' as well as in the 5' LTR region of the resulting provirus in a fashion where the promoter is located upstream of the coding sequence and drives expression of the coding sequence, and

b) a packaging cell line harbouring at least one retroviral construct coding for proteins required for said retroviral vector to be packaged.

18. (Amended) A method for introducing a nucleotide sequence into target cells comprising

a) contacting the target cells with recombinant retroviral particles according to claim 11, wherein the nucleotide sequence is selected from the group consisting of a nucleotide sequence which is homologous to the target cell, a nucleotide sequence which is heterologous to the target cell and combinations thereof;

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b) maintaining the cells under conditions in which the target cells are infected with the recombinant retroviral particles,

thereby introducing the nucleotide sequence into the target cells.

Please add new Claims 22-24.

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22. (New) A retroviral vector comprising one or more promoters inserted in antisense orientation within the 5' long terminal repeat (LTR) region and one or more coding sequences inserted in antisense orientation within the 3' LTR region, both the promoter as well as the coding sequence inserted in such a way as to ensure that the promoter and the coding sequence become duplicated during the process of reverse transcription in a target cell and appear in the 3' as well as in the 5' LTR region of the resulting provirus in a fashion wherein the promoter is inserted within the U5 region of the 5' LTR, the coding sequence is inserted within the U3 region of the 3' LTR and the promoter drives expression of the coding sequence.

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23. (New) The retroviral vector according to claim 22, wherein said coding sequence comprises DNA which is heterologous to the vector.

24. (New) The retroviral vector according to claim 23, wherein said coding sequence is selected from one or more elements of the group consisting of marker genes, therapeutic genes, antiviral genes, antitumour genes, cytokine genes, toxin genes and combinations thereof.